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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/662,762	09/15/2003	Hal B.H. Cooper	279-101D-C-C-C	1479

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EXAMINER	
LANGEL, WAYNE A	

ART UNIT	PAPER NUMBER
1754	

DATE MAILED: 05/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/662,762	COOPER ET AL.	
	Examiner	Art Unit	
	Wayne Langel	1754	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 54-84 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 54-84 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 15 September 2003 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 9-15-03.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 54-84 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miller et al in view of JP 08-071372. Miller et al disclose a process for flue gas conditioning wherein ammonia and sulfur trioxide gases are added to the flue gas to obtain better removal of particulate matter in baghouse particulate separators. (See the Abstract and col. 3, lines 35-45.) Miller et al do not disclose how the ammonia is produced. JP 08-071372 discloses a method for producing gaseous ammonia from a urea solution. The urea solution is heated and catalytically hydrolyzed to a gaseous product stream comprising ammonia, carbon dioxide and water vapor. The hydrolyzed product is then sent to a gas-liquid separator to separate the gaseous ammonia and carbon dioxide from the liquid The liquid from the gas-liquid separating step is recycled into the hydrolysis catalyst solution for further urea hydrolysis. The gaseous ammonia which is separated in the gas-liquid separating step is then fed into a flue gas. (See the Abstract.) It would be obvious to obtain the ammonia necessary for the process of Miller et al according to the process of JP 08-071372, since one of ordinary skill in the art

would appreciate that the ammonia required in the process of Miller et al could be obtained from any known or conventional source. The ammonia production rate in the process of JP 08-071372 would be governed by the concentration of urea in the reactor to no less extent than it would in the process recited in applicant's claims.

Claims 54-84 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 08-071372 in view of Miller et al. JP 08-071372 and Miller et al are relied upon as discussed hereinbefore. The difference between the process disclosed by JP 08-71372, and that recited in applicants' claims, is that JP 08-071372 does not disclose that the gaseous ammonia produced should be fed at a controlled pressure and rate of flow for external use. It would be obvious from Miller et al to withdraw the gaseous ammonia formed according to the process of JP 08-071372 and use it in a process for flue gas conditioning, since one of ordinary skill in the art would appreciate that the ammonia produced according to the process of JP 08-071372 could be used in any known or conventional process, such as the flue gas conditioning process of Miller et al. The ammonia production rate in the process of JP 08-071372 would be governed by the concentration of urea in the reactor to no less extent than it would in the process recited in applicant's claims.

Claims 54-84 are rejected under 35 U.S.C. 102(a) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over applicants' admitted prior art. The process recited in the preambles of applicants' claims is conventional in and of itself, as indicated by the fact that these claims are written in Jepson format. The ammonia production rate would inherently be governed by the concentration of urea in the reactor

of the admitted prior art process, since the relationship between the urea concentration in the reactor and the ammonia production rate would exist in applicants' admitted prior art process to no less extent than it would in the process recited in applicants' claims.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 54-84 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. There is no "description support" in the original specification for the step of governing the ammonia production rate by the concentration of urea in the reactor.

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 54-84 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-26 of U.S. Patent No. 6,322,762. Although the conflicting claims are not identical, they are not patentably distinct from each other because the ammonia production rate would inherently be governed by the concentration of urea in the reactor in the process recited in the claims of US 6,322,762.

Claims 54-84 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-28 of U.S. Patent No. 6,506,350. Although the conflicting claims are not identical, they are not patentably distinct from each other because the ammonia production rate would inherently be governed by the concentration of urea in the reactor in the process recited in the claims of US 6,506,350.

Claims 54-84 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-49 of U.S. Patent No. 6,077,491. Although the conflicting claims are not identical, they are not patentably distinct from each other because the ammonia production rate would inherently be governed by the concentration of urea in the reactor in the process recited in the claims of US 6,077,491.

Claims 54-84 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-53 of U.S. Patent No. 6,730,280. Although the conflicting claims are not identical, they are not patentably distinct from each other because the ammonia production rate would inherently be governed by the concentration of urea in the reactor in the process recited in the claims of US 6,730,280.

Claim 84 is rejected under 35 USC 112 paragragh 5 as constituting a multiple dependent claim which fails to depend from the parent claims in the alternative only.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wayne Langel whose telephone number is 571-272-1353. The examiner can normally be reached on Monday through Friday, 8 am - 3:30 pm Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman can be reached on 571-272-1358. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Wayne A. Langel

Wayne Langel
Primary Examiner
Art Unit 1754